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PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

NATIONAL ELECTRICAL CARBON CORPORATION FOSTORIA, OHIO OHD 004 167 219

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the National Electrical Carbon Corporation (NECC) facility in Fostoria, Ohio. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

The NECC facility occupies about 46 acres and is used for the production of carbon and graphite products. The facility has continually expanded over the years; however, carbon and glass manufacturing have occurred since it was established in 1892. Union Carbide (UC) operated the facility from 1917 to late 1986 when the property was sold to Morgan Crucible. Morgan Crucible operates the facility under the name National Electrical Carbon Corporation and has about 190 employees.

In 1980, UC filed a Part A permit application identifying the facility as a treatment, storage or disposal (TSD) facility with storage of waste in drums (SWMU 7). In 1988, during closure activities at SWMU 7, soil and ground water contamination was detected. However, OEPA granted NECC a status change in 1991 to RCRA-generator of hazardous waste with less than 90-day storage. The facility generates a variety of waste solvents and solvent contaminated materials, wastewater, nonhazardous carbon dust and lead-contaminated carbon dust, waste plating filters, waste oils and hydraulic fluids, empty drums, waste carbon, and metallic debris.

The PA/VSI identified the following nine SWMUs and six AOCs at the facility:

Solid Waste Management Units

1. Satellite Accumulation Areas
2. Baghouses
3. Hazardous Waste Storage Area
4. Empty Drum Storage Area
5. Waste Oil Storage Area
6. Debris Collection Area
7. Former Hazardous Waste Storage Area
8. Ground-Water Treatment System
9. Old Drum Storage Area

Areas of Concern

1. Building Nos. 72 and 77 Spill Area
2. Building No. 4 Spill Area
3. Tank Field
4. Fuel Oil UST
5. Excavated TCE USTs
6. NECC Facility

The nearest drinking water wells are located in a residential area about 1,000 feet northeast of the facility. City water is available to all residences in this area; however, some are still supplied by ground-water from the bedrock aquifer. The wells are not directly downgradient from the facility. Fostoria uses five man-made reservoirs supplied by water from the East Branch of the Portage River for municipal water. The closest reservoir to the facility is about 1.2 miles southwest. The facility does not have an National Pollutant Discharge Elimination System (NPDES) permit. The potential for the facility to release to surface water is low.

Area residents occasionally complain about sulfur dioxide emissions from the facility, however no regulatory violations for air releases have been documented. NECC has 52 air permits. The potential for the facility to release to air is low. Contamination problems at the facility are related to on-site soils and ground water. The potential for all SWMUs to release to surface water is low.

Releases to on-site soils and ground water have occurred in three areas. During closure of a Former Hazardous Waste Storage Area (SWMU 7), trichloroethylene (TCE) contamination was detected in soils and ground water. A plan for landfill closure and post-closure care for the unit has been approved by Ohio Environmental Protection Agency (OEPA). TCE has also been detected in the vicinity of Building Nos. 72 and 77 (AOC 1). In the vicinity of Building No. 4 (AOC 2), 1,2-dichloroethane has been detected in ground water. A ground-water recovery system that discharges to a Ground-Water Treatment System (SWMU 8) has been in operation at AOC 1 since 1989; modifications to the recovery system will be installed by November 1992 to broaden the recovery range of the AOC 1 area and to recover ground water from the SWMU 7 area. OEPA is skeptical that the recovery system will adequately collect contaminated ground-water from the two areas and will dictate further action for the areas after reviewing sampling results. A recovery system will also be installed in the vicinity of Building No. 4. OEPA will also dictate further action at this location. PRC recommends that remediation continue and that OEPA continue to review monitoring reports of future sampling.

Other major concerns at the facility include the Old Drum Storage Area (SWMU 9) and the Tank Field (AOC 3), both of which have a high potential for release to ground water. Because little investigative work has been performed, PRC recommends that soil and ground water be sampled near these areas.

SWMUs 4, 5, and 6 are lacking adequate containment for preventing releases. The Fuel Oil UST (AOC 4) has a low to moderate potential to release to on-site soils and ground water. A tightness test should be performed on the unit. To detect releases from the Excavated TCE USTs (AOC 5), wells in the vicinity of AOC 5 should be monitored to determine if a source for TCE is present.

PRC considers the entire NECC facility an AOC because industrial activity has been occurring since the late 1800s, and because several releases to ground-water have occurred. Residential wells northeast of the facility should be immediately sampled. Given waste management practices during most of this century, hazardous releases from unidentified sources at the facility may have occurred and may be continuing. The facility's history and past waste management practices should be further investigated. An information gathering effort of this magnitude is beyond the scope of a PA/VSI.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the National Electrical Carbon Corporation (NECC) facility (EPA Identification No. OHD 004 167 219) in Fostoria, Seneca County, Ohio. The PA was completed on June 10, 1992. PRC gathered and reviewed information from the Ohio Environmental Protection Agency (OEPA) and from EPA Region 5 RCRA files, the U.S Department of Agriculture (USDA), the Ohio Department of Natural Resources (ODNR), and the U.S. Geological Survey (USGS). The VSI was conducted on June 15, 1992. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified nine SWMUs and six AOCs at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included as Attachment A. The VSI is summarized and 14 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; a history of documented releases; regulatory history, environmental setting; and receptors.

2.1 FACILITY LOCATION

The NECC facility is located in Fostoria, Seneca County, Ohio (latitude 41°09'34"N, longitude 83°24'60"W) (see Figure 1). It is bordered to the north by Ohio Power, to the east by farmland, and to the south and west by private residences.

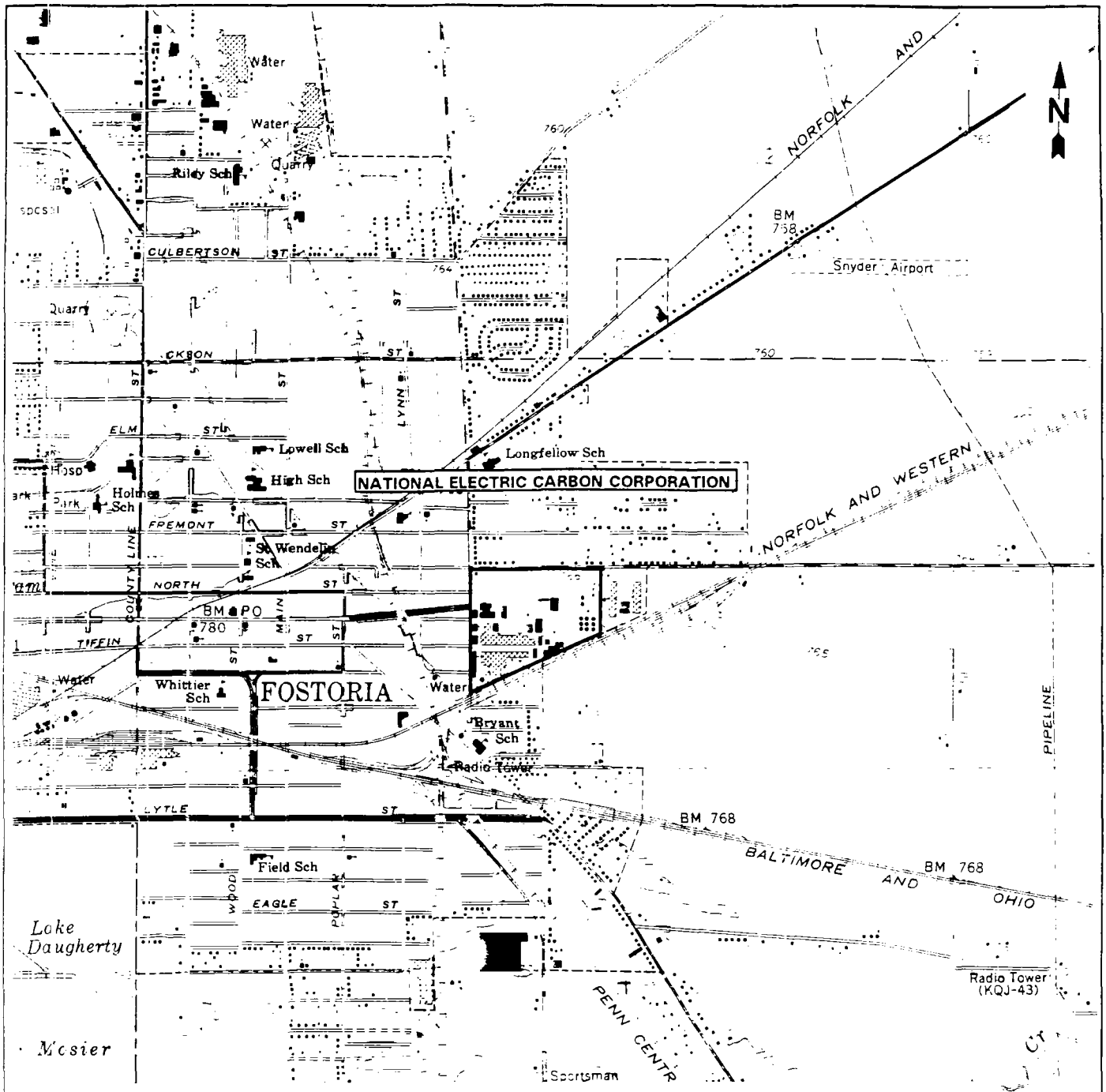
2.2 FACILITY OPERATIONS

NECC occupies about 46 acres. The facility covered about 70 acres until 1989 when a number of buildings at the east end of the site were sold to Robbinsville Development Limited (RDL) (see Figure 2). NECC and RDL are currently involved in a legal disagreement concerning ownership of the property sold to RDL.

The facility has constantly expanded over the years; however, carbon and glass manufacturing have occurred at the facility since it was established by J.B. Crouse and H.H. Tremaine in 1892. In 1899, the National Carbon Company purchased the facility and then sold it to Union Carbide (UC) in 1917. UC operated at the facility until late 1986, when the property was sold to Morgan Crucible. Morgan Crucible operates the facility under the name National Electrical Carbon Corporation. The facility representative could supply little information concerning the facility's early years of operation. The facility has 190 employees and operates three shifts 5 days per week, 24 hours per day.

NECC manufactures various carbon and graphite products including the following:

- Electric motor brushes
- Graphite rods for industrial diamond manufacturing
- Carbonized and graphitized rayon and felt
- Lighting carbon
- Heat exchange pipe

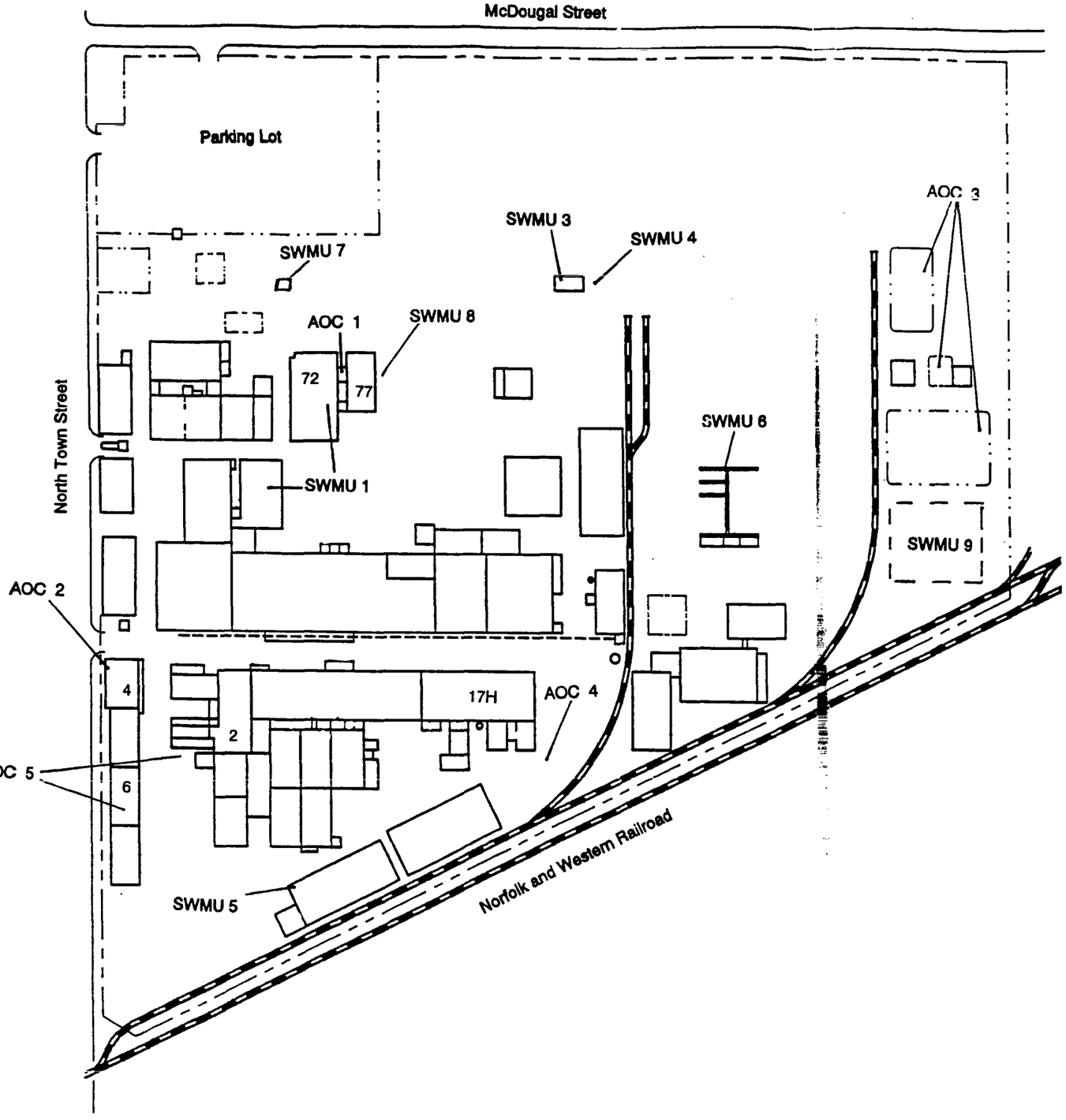


Source: Modified From USGS, Fostoria, Quadrangle, Photorevised 1972.

NATIONAL ELECTRIC CARBON CORPORATION
FOSTORIA, OHIO

FIGURE 1
FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.



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Solid Waste Management Units

1 Satellite Accumulation Areas
2 Baghouses (not shown)
3 Hazardous Waste Storage Area
4 Empty Drum Storage
5 Waste Oil Storage Area
6 Debris Collection Area
7 Former Hazardous Waste Storage Area
8 Ground-Water Treatment System
9 Old Drum Storage Area

Areas of Concern

1 Building Nos. 72 and 77 Spill Area
2 Building No. 4 Spill Area
3 Tank Field
4 Fuel Oil UST
5 Excavated TCE USTs
6 NECC Facility

100' 0 100' 200'
SCALE: 1" = 200'

Source: Modified from NECC, 1992.

NATIONAL ELECTRIC CARBON CORPORATION
FOSTORIA, OHIO

FIGURE 2
FACILITY LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

- Carbon mechanical seals
- Filtration media

Raw materials used at the facility include coal tar pitch, coke particles, natural graphite, and extrusion oils. Raw materials are stored in various warehouses throughout the facility. The manufacturing process consists of raw material sizing and blending, pressing and extruding materials, baking, and finishing (NECC, 1992).

PRC identified nine SWMUs and six AOCs at the NECC facility. The SWMUs are listed in Table 1.

2.3 WASTE GENERATION AND MANAGEMENT

NECC generates a variety of waste solvents and solvent contaminated materials, wastewater, nonhazardous carbon dust and lead-contaminated carbon dust, waste plating filters, waste oils and hydraulic fluids, empty drums, waste carbon, and metallic debris (NECC, 1992). Wastes generated at the facility are listed in Table 2.

Waste trichloroethlene (TCE) (F001) and TCE debris (D040) is generated from a scouring unit used to degrease rayon-based cloth in Building No. 77. The waste TCE materials are stored in a Satellite Accumulation Area (SAA) (SWMU 1) in separate 55-gallon drums. When full, the drums are transferred to the Hazardous Waste Area (SWMU 3) and are eventually removed from the facility by Chemical Solvents, Inc., in Cleveland, Ohio for reclamation or disposal. NECC generates about 31,000 pounds of these waste materials per year.

Waste solvents are generated at NECC from a small testing laboratory, disposal of off-specification materials, and parts cleaners. NECC uses a small testing laboratory at the west end of the facility for quality control of carbon products. Waste solvents, including waste acetone (D001 and F003), waste xylene (D001 and F003), and waste toluene (D001 and F005) result from the cleaning of testing equipment and materials to be tested. The waste materials are accumulated in an SAA (SWMU 1) below the testing laboratory and eventually moved to SWMU 3. The solvents are removed from the facility to Petro-Chem, Inc. (Petro-Chem), in Detroit, Michigan for reclamation. NECC generates about 3,500 pounds of the materials annually.

TABLE 1

SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Satellite Accumulation Areas	No	Active
2	Baghouses	No	Active
3	Hazardous Waste Storage Area	No	Active
4	Empty Drum Storage area	No	Active
5	Waste Oil Storage Area	No	Active
6	Debris Collection Area	No	Active
7	Former Hazardous Waste Storage Area	Yes	Inactive -- Closure operations are underway.
8	Ground Water Treatment System	No	Active
9	Old Drum Storage Area	No	Inactive -- it is not known when wastes were last stored in the area. Partial remediation was performed in 1983.

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

TABLE 2

SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b]
Waste TCE/F001	Scouring unit	1 and 3
TCE-Contaminated Debris/D040	Scouring unit	1 and 3
Waste Acetone/D001	Off-specification materials/testing laboratory	1 and 3
Waste Xylene/F003	Testing Laboratory	1 and 3
Waste Toluene/F005	Testing Laboratory	1 and 3
Waste Furfural Alcohol/D001	Off-specification materials	1 and 3
Waste Diethyl Sulfate/D002	Off-specification materials	1 and 3
Waste Petroleum Naptha/D001, D039	Parts cleaners	None
TCE-Contaminated Ground-Water Filter Media/D040	Trichloroethylene spill area	1 and 3
Wastewater/NA	Trichloroethylene spill area and various sources	8
Waste Carbon Dust/NA	Manufacturing	2 and 4
Lead-Contaminated Carbon Dust/D008	South press	2 and 3
Plating Filters/NA	Plating area	3
Waste Oils and Waste Hydraulic Fluids/NA	Maintenance and machinery lubrication	5
Empty Drums/NA	Process materials	4 and 6
Waste Carbon/NA	Manufacturing	6
Metallic Debris/NA	Manufacturing	6

Notes:

[a] Not applicable (NA) designates nonhazardous waste.

[b] "None" indicates that the waste stream is not managed on site.

Waste furfural alcohol (D001), waste acetone (F003), and diethyl sulfate (D002) result from material expiration. The waste materials are accumulated in an SAA (SWMU 1) near the generation areas and eventually moved to SWMU 3. The furfural alcohol and acetone are removed to Petro-Chem for reclamation, and the diethyl sulfate is removed to Chemtron in Avon, Ohio for stabilization and is eventually sent to a landfill. NECC generates about 300 pounds per year of each waste.

NECC uses a number of parts cleaners throughout the facility maintained by Safety-Kleen Corporation (Safety-Kleen) based in Toledo, Ohio. Use of the parts cleaners generates waste petroleum naptha (D001) and naptha-contaminated rags (D039). The facility generates about 2,400 pounds per year of waste naptha, which Safety-Kleen removes directly from the parts cleaners and reclaims. Contaminated rags are also removed by Safety-Kleen for solvent removal.

TCE-contaminated wastewater from a TCE spill area (AOC 1) is collected by a Ground-Water Treatment System (SWMU 8) at the north central portion of the facility (see Section 2.4) The extracted ground water is passed through a carbon filtration unit before entering the 7,000-gallon collection tank. When the tank is nearly 75 percent full, NECC analyzes a sample of the wastewater for TCE content. If the TCE content is below 50 parts per billion (ppb), the wastewater is discharged to the Fostoria sanitary sewer. If not, which has yet to occur, the wastewater will be removed from the facility by bulk for treatment. The TCE-contaminated carbon filtration media (D040) is removed twice per year, placed in 55-gallon drums, stored in SWMU 3, and taken to Ross Incineration, in Grafton, Ohio. About 1,400 pounds per year of the waste is generated.

Other sources of wastewater at the facility include sanitary wastewater, noncontact cooling water, and final rinsewater from an occasionally used copper plating line. All wastewater is discharged to the Fostoria sanitary sewer.

NECC generates nonhazardous carbon dust from various manufacturing processes throughout the facility. The dust is accumulated in 1-cubic yard mesh bags at the Baghouses (SWMU 2). NECC has no designated storage area for the dust, although various buildings and the Empty Drum Storage Area (SWMU 4) are used. NECC sells the dust to various industries for use as a heating agent, because of its high British Thermal Unit (Btu) value, and for graphite production. NECC deals with at least 10 dust recycling firms per year. The facility representative could not supply generation figures for the dust.

One carbon press at the facility, in Building No. 19, uses lead as a lubricant. Lead-contaminated carbon dust (D008) is collected by a baghouse (SWMU 2) in 55-gallon drums. Full

drums are stored in SWMU 3 and eventually taken to Chemical Services, in Wyandotte, Michigan. The dust undergoes lead extraction treatment and is eventually disposed of at the BFI Landfill in Findlay, Ohio. NECC generates from 25 to 30 drums of the dust per year (PRC, 1992c).

As mentioned above, a light-duty copper plating line is periodically used for copper plating of carbon rods. Wastewater from this operation is passed through filters and discharged to the Fostoria sanitary sewer. The process generates about two 55-gallon drums per year of nonhazardous filters, which are temporarily stored in SWMU 3 and then taken to the Envirosafe Industrial Landfill in Oregon, Ohio.

NECC generates about 2,500 gallons per year of waste oils and waste hydraulic fluids from maintenance and lubrication of machinery throughout the facility. The materials are accumulated in 55-gallon drums and transferred to the Waste Oil Storage Area (SWMU 5). The materials are eventually taken to Cousins Waste Control in Toledo, Ohio for reclamation (PRC, 1992d).

Empty drums are generated from raw materials and various chemicals used in NECC's processes. Reusable empty drums are stored at SWMU 4 and eventually removed from the facility by a recycling company. NECC has had difficulty locating a company to remove the drums. During the VSI, PRC estimated that at least 100 empty drums were in the storage area. Unusable (bent or rusted) drums are accumulated in the Debris Collection Area (SWMU 6).

NECC generates various grades of nonhazardous waste carbon and other metallic debris from the carbon manufacturing processes. The materials are stored in the Debris Collection Area (SWMU 6). Depending on their usability, the materials are sold as scrap, sold to a recycler, or disposed of at the Seneca County Landfill in Tiffen, Ohio. NECC could not supply generation rates for these materials.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the facility.

In February 1985, about 600 gallons of TCE were spilled during the filling of an 8,000-gallon underground storage tank (UST). The UST was located at the west-central portion of the facility, between Building Nos. 72 and 77 (AOC 1). About 200 to 300 gallons of TCE was recovered; the remainder percolated into the surrounding soils. In March 1985, UC submitted to OEPA a Remedial Investigation and Clean-Up Plan for the contaminated area (UC, 1985). Preliminary sampling results revealed that TCE contamination extended beyond the suspected

boundary of the spill area, indicating that one or more prior releases had occurred at UC (OEPA, 1985). Because the contamination boundaries were not defined, OEPA would not approve UC's investigation plan. In 1986, an investigative plan was approved and NECC's contractor, T.A. Gleason & Associates, Inc. (Gleason), excavated contaminated soil, removed the UST, and installed ground-water monitoring wells (B&W, 1991).

In November 1988, during RCRA closure activities at the Former Hazardous Waste Storage Area (SWMU 7), soil sampling around the concrete pad of the unit revealed the presence of volatile organic compounds (VOC) (NECC, 1989a). Gleason excavated the soils to a depth of 1 foot and recovered soil samples from the base of the excavated area. During the excavation, ground water was encountered and sampled. Analyses detected TCE (NECC, 1989b). Gleason immediately proposed a ground-water recovery system to NECC for remediation of the area (NECC, 1990).

In 1988, during the investigation of the TCE spill at Building Nos. 72 and 77 (AOC 1), another area of ground-water contamination was discovered near Building No.4 (AOC 2), at the southwestern portion of the facility. Samples from ground-water monitoring wells installed in the area indicate that the primary contaminant is 1,2-dichloroethane (DCA) (B&W, 1991).

In 1989, NECC's contractor, Bennet & Williams, Inc. (B&W), installed a Ground-Water Treatment System (SWMU 8) at the spill area between Building Nos. 72 and 77 (AOC 1). The system consisted of two 24-inch-diameter sumps extending through the backfill of the UST excavation area. Ground water collected in the sumps is pumped to a carbon adsorption system, and then to the 7,000-gallon collection tank. As mentioned in Section 2.3, if the TCE level of the collected water is below 50 ppb, the water is discharged to Fostoria's sanitary sewer.

An expansion of the Ground-Water Treatment System at Building Nos. 72 and 77 is set for completion by November 1, 1992. The system is designed not only to further address the spill area, but to collect and contain contaminated ground water at the Former Hazardous Waste Storage Area (SWMU 7). OEPA required the latter as part of landfill closure and post-closure activities for SWMU 7 (see Section 2.5).

OEPA is skeptical that the expanded recovery system will adequately collect contaminated ground-water from the two areas. After the system is installed, quarterly ground-water samples will be collected from nearby monitoring wells to assess the system's performance. OEPA Division of Ground Water (DGW) will review the sampling results and dictate further action at the facility (PRC, 1992e).

Also by November 1, 1992, four ground-water recovery sumps will be installed near Building No. 4. Ground water will be pumped to aeration trays, and air will be blown through the water, to remove the contaminants. Treated ground water will be analyzed for DCA and TCE. If levels are below 50 ppb, the water will be discharged to the sanitary sewer. If the level is above 50 ppb, the water will be removed by bulk from the facility for treatment. As with the expanded ground-water recovery system, OEPA DGW will review results of ground-water sampling and dictate further action for this area (PRC, 1992e).

2.5 REGULATORY HISTORY

In August 1980, UC filed a Notification of Hazardous Waste Activity form with EPA. In November 1980, the company filed a Part A permit application as a treatment, storage, or disposal facility (TSDF) with hazardous waste storage in drums (S01) (SWMU 7). Operations involved the manufacturing of carbon and graphite products. Wastes listed on the application included F001, F002, F008, D001, D002, and a variety of U-listed wastes. The application listed 26 air permits and 47 air permits pending registration (UC, 1980).

OEPA RCRA compliance inspections performed at the facility from 1982 through 1984 found minor violations, including no documentation of training and an incomplete contingency plan. UC addressed the problems adequately (OEPA, 1982, 1983, 1984).

In October 1986, NECC informed OEPA that it wished to withdraw its Part A permit application for TSDF status and operate as a generator with less than 90-day storage. In June 1987, NECC submitted a closure plan to OEPA for the Former Hazardous Waste Storage Area (SWMU 7) (NECC, 1987). NECC intended to continue using the unit for less than 90-day storage once closure was complete. OEPA disapproved the closure plan, and NECC submitted a revised version in early 1988 that called for soil sampling around the storage area (NECC, 1988). OEPA approved the revised closure plan in April 1988, and Gleason began closure activities 7 months later (OEPA, 1988).

As detailed in Section 2.4, TCE was discovered in soil and ground water during closure activities. Contaminated soil was removed, and Gleason immediately proposed a ground-water recovery system to remediate the area. NECC, unhappy with the cost of the system, informed OEPA that the company was searching for another contractor to handle the remediation (NECC, 1990).

In August 1990, realizing that clean closure for SWMU 7 was probably unattainable, OEPA requested that NECC submit an amended closure plan providing for landfill closure and post-closure care, including ground-water monitoring (OEPA, 1990). NECC immediately

submitted an amended closure plan that OEPA disapproved in September 1991 (OEPA, 1991a). In November 1991, NECC submitted a closure plan proposing landfill closure and post-closure care for the unit, including ground-water monitoring and the expanded ground-water recovery system. OEPA approved the plan in January 1992. As explained in Section 2.4, OEPA DGW will review quarterly sampling results and dictate further action at the facility.

Although closure of SWMU 7 is not complete, OEPA granted a change in status to NECC in April 1991. The facility is now considered a generator of hazardous waste with less than 90-day storage (OEPA, 1991b).

NECC does not possess an National Pollution Discharge Elimination System (NPDES) permit. The facility has a wastewater permit from the City of Fostoria for discharges of sanitary wastewater, noncontact cooling water, wastewater from the Ground-Water Treatment System (SWMU 8), and water from an occasionally used copper plating line. NECC must sample water from the ground-water extraction holding tank for TCE content before it is discharged (NECC, 1992). NECC samples wastewater from the plating line filtration system, prior to discharge to the sanitary sewer, every 6 months for heavy metals.

NECC has 52 air permits mainly covering the dust collectors, various stack emissions, emissions from carbon saws, and induction baking systems. No documented releases were found in either EPA Region 5 or OEPA files. The facility representative indicated that NECC received occasional complaints from area residents concerning sulfur dioxide releases, however no releases have been documented.

Two USTs remain at the facility. Four USTs have been removed (see AOCs 4 and 5). Because the USTs contained product materials, neither EPA or OEPA were involved with the removals.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility.

2.6.1 Climate

The climate in northwestern Ohio consists of cold winters and hot summers. The yearly average temperature is 51°F. The lowest average monthly temperature is 19.3°F in January. The highest average monthly temperature is 84.2°F in July. Precipitation for northwest Ohio is well distributed throughout the year. Average yearly rainfall for Seneca County is 34.81 inches.

Rainfall peaks in July at 3.80 inches and is at its least in October at 1.95 inches (USDA, 1980). The 1-year, 24-hour maximum rainfall is 2.3 inches, and the average yearly net precipitation is 3.81 inches. The prevailing wind is from the southwest, and the highest average wind speed is 11 miles per hour in March (Todd, 1983).

2.6.2 Flood Plain and Surface Water

The NECC facility does not lie in a 100-year flood plain. The nearest surface water body is a unnamed branch of Wolf Creek, about 4,000 feet south of the facility. Wolf Creek, used mainly for storm water drainage, flows about 15 miles northeast before entering the Sandusky River. The Sandusky River flows north and enters Lake Erie about 15 miles north of its confluence with Wolf Creek. The East Branch of the Portage River (East Branch) lies about 1.25 miles southwest of NECC. The East Branch enters the Portage River about 13 miles northwest of Fostoria. The Portage River flows northeast and enters Lake Erie about 33 miles from its confluence with the East Branch (USDA, 1980; USGS, 1972).

Fostoria uses five man-made reservoirs supplied by the East Branch for municipal water supplies. A sixth reservoir is under construction and will be in use by the end of 1992. The closest reservoir to the facility is about 1.2 miles southwest. Fostoria pumps about 2.7 million gallons per day from the reservoirs (PRC, 1992a).

Storm water from NECC mainly flows to drains throughout the facility that enter the Fostoria storm water sewer system. Storm water sewers in the vicinity of NECC enter the unnamed branch of Wolf Creek. Storm water from the eastern end of the facility is subject to surface infiltration.

2.6.3 Geology and Soils

Seneca County lies on the southeastern edge of the Findlay Arch, a northern extension of the Cincinnati Arch, a large anticline running from Tennessee to Canada. The bedrock in the area is Silurian age dolomitic limestone of the Lockport formation. The dolomitic limestone deposits are a result of massive reef development in inland seas present in the central eastern portion of the United States during the Silurian period (Ausich, 1981). Depth to bedrock in the area is about 31 feet below ground surface. Advance and retreat of the Wisconsinan glaciers during the Pleistocene age formed the present day topography and surface soils of Seneca County (USDA, 1980).

Specific geology for the NECC facility was derived from borings performed at the facility during the middle to late 1980s. Generally the geology at the facility consists of the following materials in descending order (UC, 1985; NECC, 1992):

•	0 to 2:	Soil and fill material
•	2 to 10 feet:	Gray silty clay
•	10 to 16 feet:	Gray silty fine sand
•	16 to 30 feet:	Gray silty clay
•	30 to 31 feet:	Discontinuous sand, gravel, and weathered dolomite (western portion of the facility)
•	31 to 300 feet:	Light tan to light bluish gray dolomitic limestone

Soils near the facility belong to the Kibbie-Digby association. Typically, these soils are poorly drained and formed in medium textured to coarse textured sediments (USDA, 1980).

2.6.4 Ground Water

Three aquifers are present in the NECC vicinity. Two aquifers exist in the glacial materials overlying the area bedrock: an upper aquifer in the silty sand unit and a lower aquifer in the discontinuous sand and gravel unit. The water table is at about 10 feet below the ground surface, and ground water flows generally to the northwest (NECC, 1991). The hydraulic conductivity of these glacial aquifers is about 270 feet per year, and recharge is from surface infiltration. The aquifers are regionally considered poor sources of water because of unpredictable availability and high iron levels (ODNR, 1962).

The primary aquifer in the Fostoria area is contained in the dolomitic limestone bedrock and produces up to 1,000 gallons per minute (Todd, 1983). In the NECC vicinity, this aquifer can produce over 100 gallons per minute and has a hydraulic conductivity of about 30 feet per year (NECC, 1992). Ground-water flow in the bedrock aquifer is to the northwest; however, local ground-water flow in this aquifer is influenced by industrial supply wells operated by NECC (screened at 250 feet) and other companies in the area. Ground water, recharged by surface infiltration and ground-water movement from the south, is transported through regional fractures and solution channels formed by the dissolution of carbonate rock. A principal fracture zone occurs in the upper 150 to 175 feet (NECC, 1991). The bedrock aquifer at times contains high amounts of iron and hydrogen sulfide (ODNR, 1962).

The nearest drinking water wells are located in a residential area about 1,000 feet northeast of the facility. The wells are screened in the bedrock aquifer. City water is available to all residences in this area, however, some use ground water. The wells are not directly downgradient from the facility. The City of Fostoria city engineer did not know which or how many of the residences are using ground water (PRC, 1992b). Residences east of the facility also

use ground water. Wells in this area are upgradient from the facility. The City of Fostoria has three municipal water wells, screened at about 180 feet below ground surface, about 1.5 miles northwest of the facility. The wells have been used as a secondary source of drinking water during dry seasons. However, the City of Fostoria is planning to plug the wells (PRC, 1992b).

As detailed in Section 2.4, ground water is contaminated in three areas at the facility.

2.7 RECEPTORS

The NECC facility is located in a mixed industrial and residential area of Fostoria, Ohio. It is bordered to the north by Ohio Power, to the east by farmland, and to the south and west by private residences. The nearest residences are located just across Town Street to the west. Nearly all Fostoria residents live within 1 mile of the facility; the population of Fostoria is about 14,957. The nearest school is 800 feet south of NECC. Area residents have occasionally complained about sulfur dioxide emissions from NECC. The facility is monitored 24 hours per day by security personnel and is surrounded by a 6-foot-high, steel, chain-link fence.

As mentioned in Section 2.6.2, the closest surface water body is Wolf Creek, about 4,000 feet south of the facility. Most storm water from NECC flows directly to Wolf Creek. The East Branch lies about 1.25 miles southeast of NECC. Fostoria uses five man-made reservoirs, supplied by the East Branch, for municipal water supplies. The closest reservoir to the facility is about 1.2 miles southwest. Fostoria pumps about 2.7 million gallons per day from the reservoirs.

As detailed in Section 2.6.4, the nearest drinking water wells are located in a residential area about 1,000 feet northeast of the facility. The wells are not directly downgradient from the facility. The City of Fostoria has three water wells about 1.5 miles northwest of the facility that have been used as a secondary source of drinking water during dry seasons. However, the City of Fostoria is planning to plug the wells (PRC, 1992b). NECC has three on-site industrial wells, all screened at about 250 feet below the ground surface.

There are no sensitive environments within 2 miles of the NECC facility (USGS, 1972).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the nine SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1	**Satellite Accumulation Areas**
Unit Description:	NECC uses 55-gallon drums for satellite accumulation of various waste solvents throughout the facility. The drums are kept indoors on wooden skids, over solid concrete (see Photograph Nos. 1 and 2). When full, the drums are eventually transferred to the Hazardous Waste Storage Area (SWMU 3).
Date of Startup:	NECC has used satellite accumulation since the early 1970s.
Date of Closure:	The units are active.
Wastes Managed:	Satellite Accumulation Areas are used for the temporary storage of waste solvents, including waste TCE (F001), TCE-contaminated debris (D040), waste acetone (D001), waste furfural alcohol (D001), waste diethyl sulfate (D002), waste xylene (F003), and waste toluene (F005).
Release Controls:	NECC uses 55-gallon drums for satellite accumulation. The drums are kept indoors, on wooden skids, above solid concrete. The drums are monitored regularly.
History of Documented Releases:	No releases from the units have been documented.
Observations:	PRC observed a number of Satellite Accumulation Areas. The units were in sound condition and displayed no spills or stains.

SWMU 2	**Baghouses**
Unit Description:	NECC has about 23 baghouses used mainly to collect nonhazardous carbon dust particles from various manufacturing processes throughout the facility (see Photograph No. 3). Exhaust from processes is channeled into the steel baghouses and passed through filter media that collect the dust particles. The dust particles are then shaken from the filters and collected in 1-cubic-yard mesh bags. NECC has no designated storage area for the dust; however, much of it is stored in the Empty Drum Storage Area (SWMU 4). NECC sells the waste dust to various industries for use as a heating agent, because of its high British Thermal Unit (Btu) value, and for graphite production. NECC deals with at least 10 different dust recycling firms per year. The facility representative could not supply generation figures for the dust. As mentioned in Section 2.3, one baghouse is used to accumulate lead-contaminated carbon dust. The dust is collected in 55-gallon drums, which are placed in SWMU 3 when full.
Date of Startup:	NECC has been using baghouses for dust collection since the early 1960s. Units have been replaced and added over the years.
Date of Closure:	The units are active.
Wastes Managed:	The units collect nonhazardous and lead-containing, fugitive carbon dust (D008) from various molding processes.
Release Controls:	The units are fully enclosed. Dust particles are fed directly into bags or 55-gallon drums.
History of Documented Releases:	No releases from the units have been documented.
Observations:	During the VSI, PRC observed about 15 of the baghouses. The units appeared to be well-maintained; PRC noted no spilled or leaking dust.

SWMU 3	**Hazardous Waste Storage Area**
Unit Description:	The Hazardous Waste Storage Area is located in the middle northern portion of the facility. The unit consists of an aluminum frame building containing a 20- by 12-foot concrete pad (see Photograph No. 4). The pad has a capacity of about 50 drums.
Date of Startup:	The unit was built during the late 1980s.
Date of Closure:	The unit is active.
Wastes Managed:	The unit stores the following hazardous wastes: waste TCE (F001), TCE-contaminated debris and filter media (D040), waste acetone (D001), waste fufural alcohol (D001), waste xylene (F003), waste toluene (F005), and lead-contaminated carbon dust (D008). The unit occasionally stores houses nonhazardous waste plating filters.
Release Controls:	The concrete pad is epoxy-sealed and is surrounded by an 8-inch concrete berm containing a ramp. The pad is completely enclosed in an aluminum building.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit was in sound condition and displayed no severe cracks or stains.
SWMU 4	**Empty Drum Storage Area**
Unit Description:	This unit borders the eastern edge of SWMU 3. It consists of an uncovered, unbermed concrete pad measuring about 100 feet by 30 feet, that has a capacity of about 200 drums. Empty drums are brought to the area upside down on skids. NECC also uses this unit for baghouse dust storage (see Photograph No. 5). NECC has had difficulty in finding a removal company for the drums.
Date of Startup:	The unit has been used for empty drum storage since about 1980.
Date of Closure:	The unit is active.

Wastes Managed:	The unit stores empty drums and bags of waste carbon dust.
Release Controls:	The concrete pad is deteriorating severely and is not covered or bermed. According to the facility representative, the drums are rinsed prior to being placed in the unit.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	The unit contained about 200 empty drums and about 18 bags of carbon dust. The concrete base was highly deteriorated.
SWMU 5	**Waste Oil Storage Area**
Unit Description:	The Waste Oil Storage Area is inside a warehouse at the southern end of the facility. The unit has a concrete base with no defined boundaries (see Photograph No. 6). The warehouse has no floor drains.
Date of Startup:	The unit has been used for waste oil storage since the late 1980s. Before this time, NECC had no designated waste oil storage area.
Date of Closure:	The unit is active.
Wastes Managed:	The unit is used to store nonhazardous waste oils and waste hydraulic fluids.
Release Controls:	The unit is indoors on unsealed concrete.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	The concrete floor is severely cracked. A few minor oil stains were noted on the concrete. The drums were positioned randomly and most of the drums had oil residue on the top.

SWMU 6	**Debris Collection Area**
Unit Description:	The Debris Collection Area is located outdoors in the middle eastern portion of the facility. The unit covers 0.5 acre. It is consists of four uncovered areas separated by 10-foot concrete walls (see Photograph Nos. 7 and 8). Various grades of waste carbon, scrap metal, and unusable empty drums are stored in each area. The waste carbon materials are removed directly from the process machinery with a front-end loader and placed in the designated portion of the unit. Because the materials are nonhazardous, they remain in the unit indefinitely.
Date of Startup:	The area was built in the mid-1970s.
Date of Closure:	The unit is active.
Wastes Managed:	The unit is used to accumulate various grades of nonhazardous carbon, scrap metal, and unusable drums. The materials are eventually sold as scrap, sold to a recycler, or disposed of at the Seneca County Landfill in Tiffen, Ohio.
Release Controls:	The unit has no release controls; however, no storm water drains are located within 100 feet.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, the unit was in disarray and waste materials were scattered about.
SWMU 7	**Former Hazardous Waste Storage Area**
Unit Description:	The Former Hazardous Waste Storage Area is located at the northwestern portion of the facility. The unit consisted of a 25- by 25-foot sealed concrete pad and had a capacity of about 200 55-gallon drums. It was surrounded by an 8-inch concrete berm and a chain-link fence. The unit contained a concrete loading ramp and a valved floor drain at the northeast corner for discharging storm water.

As detailed in Section 2.5, in June 1987, NECC submitted a closure plan to OEPA for the unit to avoid submitting a Part B permit application. Closure began in November 1988. Soil samples from the perimeter of the concrete pad revealed the presence of VOCs. The concrete pad was removed, and ground-water samples were collected, revealing TCE contamination.

NECC has proposed landfill closure and post-closure care for the unit, including ground-water monitoring and an expansion of the ground-water recovery system currently operating in the vicinity of Building Nos. 72 and 77 (AOC 1). The expanded recovery system is expected to be operational by November 1, 1992.

OEPA is skeptical that the expanded recovery system will adequately collect contaminated ground water from the two areas. After the system is installed, quarterly ground-water samples will be collected from nearby monitoring wells to assess the system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

Date of Startup: The unit was built in 1980.

Date of Closure: Closure began in 1988. However, because of ground-water contamination, complete closure has not been accomplished.

Wastes Managed: The unit was used to store waste TCE (F001), waste furfural alcohol (D001), lead-contaminated carbon dust (D008), waste flammable liquids (D001) (NECC, 1988).

Release Controls: The unit has been completely excavated (see Photograph No. 9). It consisted of an uncovered, sealed concrete pad surrounded by an 8-inch concrete containment berm and chain-link fence.

History of Documented Releases: VOCs were detected in soils and ground water near the unit.

Observations: The unit now consists of leveled gravel.

SWMU 8	**Ground-Water Treatment System**
Unit Description:	The Ground-Water Treatment System is located at the east central portion of the facility, just east of Building No. 77. Ground water enters two 24-inch-diameter sumps extending through the backfill of the UST excavation area. Ground water is pumped, over timed intervals at about 1 gallon per minute, to a carbon adsorption unit and then to a collection tank. The tank is aboveground, consists of high-grade steel, and has a capacity of 7,000 gallons (see Photograph No. 10). When the tank is about 75 percent full, the collected ground-water is analyzed for TCE. If the TCE level is below 50 ppb, the water is discharged to the Fostoria sanitary sewer. TCE levels have consistently been below 50 ppb, and the city has had no problems with the discharge from the tank. If the level is ever above 50 ppm, the water will be removed from the facility by bulk for treatment.
Date of Startup:	The system began operating in 1989.
Date of Closure:	The unit is active.
Wastes Managed:	The system is used to accumulate TCE-contaminated ground water.
Release Controls:	The collection tank is above ground and consists of high-grade steel. The treatment system and the tank are monitored regularly.
History of Documented Releases:	No releases from the unit have been documented.
Observations:	During the VSI, the unit appeared to be in sound condition and that tank was about 50 percent full. No spilled material was noted around the tank.

SWML 9	**Old Drum Storage Area**
Unit Description:	The Old Drum Storage Area was located at the southeastern corner of the facility, just south of the Tank Field (AOC 3). The area consisted of an uncovered gravel pad, measuring about 1 acre. UC used the unit to store various drummed waste. The facility representative had little information concerning this SWMU.
Date of Startup:	It is not known when the unit was first used.
Date of Closure:	The facility representative did not know when UC stopped using the unit; however, UC began using the Former Hazardous Waste Storage Area (SWMU 7) in 1980. UC's contractor, O.H. Materials, Inc., partially remediated the unit in 1983 (NECC, 1992). NECC could not provide details of the remediation.
Wastes Managed:	The facility representative believes that wastes stored in the unit were similar to those now stored in SWMU 3, including waste solvents (halogenated and nonhalogenated) and lead-contaminated carbon dust (NECC, 1992).
Release Controls:	The unit apparently had no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	The unit consists of leveled, mixed grass and gravel.

4.0 AREAS OF CONCERN

PRC identified six AOCs during the PA/VSI. These AOCs are discussed below; their locations are shown in Figure 2.

AOC 1 Building Nos. 72 and 77 Spill Area

As detailed in Section 2.4, in February 1985, about 600 gallons of TCE were spilled during the filling of an 8,000-gallon UST. The UST was located at the west-central portion of the facility, between Building Nos. 72 and 77 (see Photograph No. 11). About 200 to 300 gallons of TCE were recovered; the remainder percolated into the surrounding soils. In 1986, OEPA approved an investigative plan, and NECC's contractor, Gleason, excavated the contaminated soil and removed the UST (B&W, 1991).

In 1989, a ground-water recovery system was installed, consisting of two 24-inch-diameter sumps extending through the backfill of the UST excavation area.

An expansion of the ground-water recovery system is set for completion by November 1, 1992. The system will not only further address AOC 1, but will collect and contain contaminated ground water at the Former Hazardous Waste Storage Area (SWMU 7). OEPA requires the latter as part of landfill closure and post-closure activities for SWMU 7.

OEPA is skeptical that expanding the recovery system will adequately collect contaminated ground water from the two areas. After the system is installed, quarterly ground-water samples will be collected from nearby monitoring wells to assess the system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

AOC 2 Building No. 4 Spill Area

As detailed in Section 2.4, during the investigation of the TCE spill at AOC 1, another area of ground-water contamination was discovered near Building No. 4, at the southwestern portion of the facility. Ground-water monitoring wells installed in the area indicate that the primary contaminant is DCA.

Four ground-water recovery sumps will be installed near Building No. 4 by November 1, 1992. Ground water will the be sampled quarterly to assess the

system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

AOC 3 **Tank Field**

The Tank Field is located at the far eastern portion of the facility. It consists of two aboveground tank areas and a central pumping station. Both tank areas are surrounded by separate 3- to 4-foot earthen berms and contain a total of 18 tanks, which range in capacity from about 8,000 gallons to 25,000 gallons. The area also contains several aboveground transfer tanks with capacities of a few hundred gallons. The facility representative could supply little historical information concerning the tanks.

The tanks in the northern portion of the field were installed about 1930. Over the years, the tanks stored various grades of raw materials used at UC, including liquid coal tars, and cutting and other oils. UC stopped using the tanks in 1985. During the VSI, PRC noted evidence of releases from the tanks, including visible tar-like residue on the sides of the tanks (see Photograph Nos. 12 and 13). Small stains were present on the gravel area surrounding the tanks.

The tanks in the southern portion of the field were installed in the early 1970s as a result of the Organization of Petroleum Exporting Countries (OPEC) oil embargo (see Photograph No. 14). The tanks were used solely to store fuel oil. In 1981, the tanks were emptied and have not been used since. During the VSI, PRC noted a few small stains on the gravel area surrounding the tanks.

AOC 4 **Fuel Oil UST**

Two 25,000-gallon USTs installed during the mid-1970s are located at the southern portion of the facility, just southwest of Building No. 17H. One tank is used for fuel oil storage, the other for water storage. The facility representative could not provide documented tightness tests for the fuel oil UST.

AOC 5 **Excavated TCE USTs**

In addition to the TCE UST removed between Building Nos. 72 and 77 (AOC 1), three other TCE USTs have been removed from the facility. Installation dates for the tanks are not known. In 1982, two 150-gallon TCE tanks were excavated from the southwest portion of the facility, inside Building No. 6. Also in 1982, a

2,500-gallon TCE tank was excavated from the southwest portion of the facility, just southwest of Building No. 2 (OEPA, 1985).

The facility representative could supply no information concerning the tank excavations.

AOC 6 **NECC Facility**

The NECC facility covers about 46 acres and has been in operation since the late 1800s. It has expanded over the years; however, carbon and glass have always been the primary manufacturing products. The facility representative could supply little information concerning the facility's early years of operation or waste management practices before 1980.

Because former operations were similar to those of today, PRC believes that former wastes were similar to those generated today, including waste halogenated and nonhalogenated solvents. Given waste management practices in the U.S. during most of this century, hazardous releases from unidentified sources at the facility may have occurred and may be continuing.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified nine SWMUs and six AOCs at the NECC facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 3, at the end of this section, summarizes the SWMUs and AOCs at the facility and the recommended further actions.

SWMU 1 **Satellite Accumulation Areas**

Conclusions: Satellite accumulation areas at the facility are indoors, well contained, and monitored regularly. Units observed during the VSI were in sound condition, and no spills or stains were noted. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action at this time.

SWMU 2 **Baghouses**

Conclusions: NECC has about 23 baghouses used mainly to collect nonhazardous carbon dust particles from various processes throughout the facility. PRC observed about 15 baghouses, including one baghouse used to collect lead-contaminated dust. The units appeared to be well maintained, and no spilled or leaking dust was noted. The potential for release to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action at this time.

SWMU 3 **Hazardous Waste Storage Area**

Conclusions: The Hazardous Waste Storage Area is fully enclosed and has an epoxy-sealed concrete floor. The floor is surrounded by an 8-inch concrete berm containing a vehicle ramp. Because of adequate containment, the potential for release from the unit to ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends no further action at this time.

SWMU 4 **Empty Drum Storage Area**

Conclusions: The Empty Drum Storage Area consists of an uncovered, unbermed concrete pad. The concrete pad is deteriorating severely and contains several large cracks. During the VSI, PRC noted about 100 empty drums in the area, and a number of drums were lying on their side. Despite efforts to properly empty and rinse the drums, chemicals could leak. NECC has had difficulty finding a company to remove the drums. The potential for release to environmental media is summarized below.

Ground Water and On-Site Soils: The potential is low to moderate. Hazardous chemicals leaking from the drums could contaminate soils beneath the concrete pad and eventually reach the water table.

Surface Water: The potential is low. There are no drains within 100 feet of the unit.

Air: The potential is low. Because any hazardous chemicals present in the drums would be minimal, releases to air would be negligible.

Recommendations: NECC should provide an adequate containment area for empty drums.

SWMU 5 **Waste Oil Storage Area**

Conclusions: The Waste Oil Storage Area is an unbermed, undefined portion of a warehouse. The concrete floor of the warehouse is cracked in spots. During the VSI, the drums were arranged randomly and most had oil residue on their tops. The potential for release to environmental media is summarized below.

Ground Water and On-Site Soils: The potential is low to moderate. Oils leaking from the drums could contaminate soils beneath the warehouse and eventually reach the water table.

Surface Water: The potential is low. There are no storm water drains within 100 feet of the unit.

Air: The potential is low. Because of the low volatility of the wastes, releases to air would be negligible.

Recommendations: NECC should provide an adequate containment area for the materials.

SWMU 6 **Debris Collection Area**

Conclusions: The Debris Collection Area is used for the collection and temporary storage of various grades of materials, including nonhazardous waste carbon, nonhazardous scrap metal, and unusable drums. Drums that are not fully emptied before being placed in the unit could release hazardous constituents. The potential for release to environmental media is summarized below.

Ground Water and On-Site Soils: The potential is low to moderate. Hazardous chemicals leaking from the drums could contaminate soils underlying the concrete pad and eventually reach the water table.

Surface Water: The potential is low. There are no surface water drains within 100 feet of the unit.

Air: The potential is low. Because any hazardous chemicals in the drums, would be minimal, releases to air would be negligible.

Recommendations: NECC should provide an adequate containment area for empty drums.

SWMU 7 **Former Hazardous Waste Storage Area**

Conclusions: Releases of TCE from the unit have been detected in soils and ground water. NECC has proposed landfill closure and post-closure care for the unit, including ground-water monitoring and an expanded ground-water recovery system. OEPA is skeptical that the expanded recovery system will be adequate. After the system is installed, ground water will be sampled quarterly to assess the system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

Recommendations: PRC recommends that remediation continue and that OEPA continue to review monitoring reports of future sampling.

SWMU 8	**Ground-Water Collection Tank**
Conclusions:	The Ground-Water Collection Tank is aboveground, consists of high-grade steel, and has a capacity of 7,000 gallons. NECC monitors the tank regularly. PRC noted no evidence of leaks during the VSI. The potential for release to ground water, surface water, air, and on-site soils is low.
Recommendations:	PRC recommends no further action at this time.
SWMU 9	**Old Drum Storage Area**
Conclusions:	The Old Drum Storage Area was used for waste storage for an undetermined amount of time. The unit had no release controls, and the types of waste stored in the unit are not known. Partial remediation was performed in 1983; however, NECC could not provide details of remediation activities. The potential for release to environmental media is summarized below. Ground Water and On-Site Soils: The potential is high. Because the unit was used for an undetermined amount of time and had no release controls, releases to on-site soils and ground water are likely to have occurred. Surface Water: The potential is low. There are no storm water drains within 100 feet of the unit. Air: The potential is low. Because possible contamination would have migrated into lower soils by now, air releases would be negligible.
Recommendations:	PRC recommends that the facility determine what remediation was performed in 1983. Soil and ground water should be sampled in the vicinity of the unit. Because of the wide range of materials that may have been used over the years at the facility, samples should be analyzed for all hazardous constituents.
AOC 1	**Building Nos. 72 and 77 Spill Area**
Conclusions:	The ground-water recovery system is being expanded to further address the ground-water contamination in this area. This expansion should be

complete by November 1, 1992. The expanded system will not only further address AOC 1 but will collect and contain contaminated ground-water at the Former Hazardous Waste Storage Area (SWMU 7). OEPA is skeptical that the expanded recovery system will be adequate collect contaminated ground-water from the two areas. Ground-water monitoring wells in the area will be sampled quarterly to assess the system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

The potential for the area to release to surface water and air is low because the contaminants are below ground.

Recommendations: PRC recommends that remediation continue and that OEPA continue to review monitoring reports of future sampling.

AOC 2 **Building No. 4 Spill Area**

Conclusions: Four ground-water recovery sumps will be installed in the vicinity of Building No. 4 by November 1, 1992. After the system is installed, ground water will be sampled quarterly to assess the system's performance. OEPA DGW will review the sampling results and dictate further action at the facility.

The potential for the area to release to surface water and air is low because the contaminants are below ground.

Recommendations: PRC recommends that remediation continue and that OEPA continue to review monitoring reports of future sampling.

AOC 3 **Tank Field**

Conclusions: The tanks in the northern portion of the field were installed about 1930 and were used until 1985 to store various grades of raw materials used at UC. Visible tar-like residue is on the sides of several tanks, and the gravel surrounding the tanks is stained. PRC believes that, because of the extended use of the tanks, releases other than the residue noted have probably occurred. PRC also noted small stains on the gravel surrounding the tanks at the southern portion of the field.

The potential for the area to release to surface water and air is low. On-site soils and ground-water contamination are the primary concerns.

Recommendations: PRC recommends soil and ground-water sampling in and around the tank field. An investigation should concentrate on the tanks at the northern portion of the field; however, the tanks at the southern portion should also be investigated. Because of the wide range of materials that may have been used at the facility, samples should be analyzed for hazardous waste constituents.

AOC 4 **Fuel Oil UST**

Conclusions: The Fuel Oil UST was installed in the mid-1970s. NECC could not provide documented tightness tests. The potential for releases to environmental media is summarized below.

Ground Water and On-Site Soils: The potential is low to moderate. Because unit's age, releases to soil and ground water are possible.

Surface Water: The potential is low because the tank is below ground.

Air: The potential is low because of the low volatility of fuel oil.

Recommendations: PRC recommends that a tightness test be performed on the tank.

AOC 5 **Excavated TCE USTs**

Conclusions: Installation dates of the tanks are not known. No documentation concerning the removal of the tanks is available. The potential for release to environmental media is summarized below.

Ground Water and On-Site Soils: The potential is low to moderate. Because the installation dates are unknown, releases to on-site soils and ground water may have occurred.

Surface Water: The potential is low because the tanks were below ground.

Air: The potential is low. Any releases would by now probably be trapped in soils and ground water.

Recommendations: Several ground-water monitoring wells have been installed as part of the Building No. 4 investigation. PRC recommends continued ground-water sampling in the vicinity of No. Building 4 to determine if a source of TCE is present.

AOC 6 **NECC Facility**

Conclusions: Releases to ground water have been documented in three separate areas at the facility. OEPA is closely following remedial activities concerning these areas. Because of the facility's size and age, and because of past waste management practices in the U.S., releases may have occurred and continue to occur from other, unidentified sources.

Recommendations: PRC recommends that area residential users of ground water be identified and that their wells be sampled for TAL and TCL parameters. If contamination is detected, residents should be switched to city water.

The facility's history and past waste management practices should be further investigated. Aerial photographs, newspaper articles, and facility reports should be reviewed; past employees should be interviewed. An effort of this magnitude is beyond the scope of a PA/VSI. This PA/VSI supplies recommendations for identified AOCs at the facility. Further sampling and analysis may be required in presently unidentified areas of the facility.

TABLE 3

SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Satellite Accumulation Areas	Early 1970s to present	None	None
2. Baghouses	Early 1960s to present	None	None
3. Hazardous Waste Storage Area	Late 1980s to present	None	None
4. Empty Drum Storage Area	1980 to present	None	Provide adequate containment.
5. Waste Oil Storage Area	Late 1980s to present	Minor oil stains were noted on the concrete floor.	Provide adequate containment for empty drums.
6. Debris Collection Area	Mid-1970s to present	None	Provide adequate containment for empty drums.
7. Former Hazardous Waste Storage Area	1980 to 1989	TCE contamination has been identified in on-site soils and ground water.	Continue remediation; OEPA should continue to review monitoring reports of future sampling.
8. Ground-Water Collection Tank	1989 to present	None	None
9. Old Drum Storage Area	Unknown to early 1980s	None	Perform soil and ground-water sampling in the area. Analyses should be for TAL and TCL parameters.

TABLE 3 (continued)
SWMU AND AOC SUMMARY

AOC	Dates of Operation	Evidence of Release	Recommended Further Action
1. Building Nos. 72 anc 77 Spill Area	1985 to present	TCE contamination of on-site soils and ground-water.	Continue remediation; OEPA should continue to review monitoring reports of future sampling.
2. Building No. 4 Spill Area	1988 to present	DCA contamination of soil and ground-water	Continue remediation; OEPA should continue to review monitoring reports of future sampling.
3. Tank Field	1930 to 1985	Tar-like residue on sides of tanks.	Perform soil and ground-water sampling in the area. Analyses should be for TAL and TCL parameters.
4. Fuel Oil UST	Mid-1970s to present	None	Perform tightness test on tank.
5. Excavated TCE USTs	Unknown to 1982	None	Continue sampling of monitoring wells in the vicinity to determine if a TCE source is present.
6. NECC Facility	Late 1800s to present	Soil and ground-water contamination has been identified in three areas of the facility.	Sample residential wells to the northeast of the facility. Further investigate history and past waste management practices.

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PRC, 1992c. Record of Telephone Conversation between Pete Zelinskas and Mike Wentzel, NECC Environmental Affairs Manager, September 15.

PRC, 1992d. Record of Telephone Conversation between Pete Zelinskas and Mike Wentzel, September 17.

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U.S. Geological Survey (USGS), 1972. Fostoria, Ohio 7.5 Minute Quadrangle Map.

ATTACHMENT A
EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	OHD004167219

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)*	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER				
National Electrical Carbon Corporation	200 North Town Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Fostoria	OH	44830	Seneca	147	
09 COORDINATES: LATITUDE 41°09'34"N	**LONGITUDE** 83°24'60"W				

10 DIRECTIONS TO SITE *(Starting from nearest public road)*
From I-75 at Findlay, take Ohio State Route 12 East to Fostoria. Follow Route 12 through Fostoria until in connects with South Market Street. The facility is directly east of the intersection of Route 12 and South Market Street.

III. RESPONSIBLE PARTIES

01 OWNER *(If known)*	02 STREET *(Business, mailing residential)*		
Morgan Crucible Company			
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**
Windsor-Berkshire, United Kingdom			
07 OPERATOR *(If known and different from owner)*	**08 STREET** *(Business, mailing, residential)*		
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**

13 TYPE OF OWNERSHIP *(Check one)*
☒ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency Name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*
☒ A. RCRA 3010 DATE RECEIVED: 08/12/80 *(MONTH DAY YEAR)* ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / *(MONTH DAY YEAR)* ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 06/15/92
☐ NO

BY *(Check all that apply)*
☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): PRC Environmental Management, Inc.

02 SITE STATUS *(Check one)*
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1892 | present *(BEGINNING YEAR ENDING YEAR)* ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
The facility generates hazardous waste including trichloroethylene (TCE) (F001), TCE-contaminated debris (D040), waste acetone (D001), waste xylene (F003), waste toluene(F005), waste furfural alcohol (D001), waste diethyl sulfate (D002), waste petroleum naptha (D001,D039), TCE-contaminated ground-water filter media (D040), lead-contaminated carbon dust (D008).

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Soil and ground-water contamination have been identified at the facility.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*
☒ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ☐ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*			03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA			(312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
Pete Zelinskas		PRC	(513) 241-0149	09 /24 /92 *(MONTH DAY YEAR)*

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*
- ■ A. SOLID
- □ B. POWDER, FINES
- □ C. SLUDGE
- □ D. OTHER _____ *(Specify)*
- □ E. SLURRY
- ■ F. LIQUID
- □ G. GAS

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)
- TON _____
- CUBIC YARDS _____
- NO. OF DRUMS 21

03 WASTE CHARACTERISTICS *(Check all that apply)*
- ■ A. TOXIC
- □ B. CORROSIVE
- □ C. RADIOACTIVE
- □ D. PERSISTENT
- □ E. SOLUBLE
- □ F. INFECTIOUS
- □ G. INFLAMMABLE
- ■ H. IGNITABLE
- □ I. HIGHLY VOLATILE
- □ J. EXPLOSIVE
- □ K. REACTIVE
- □ L. INCOMPATIBLE
- □ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	20	55-gallon drums	
SOL	SOLVENTS	1	55-gallon drum	
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
ICC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
F001	Waste trichloroethylene (TCE)		drums/reclaimed		
D040	TCE-contaminated debris		drums/landfilled		
D001	Waste acetone		drums/reclaimed		
F003	Waste xylene		drums/reclaimed		
F005	Waste toluene		drums/reclaimed		
D001	Waste furfural alcohol		drums/reclaimed		
D002	Waste diethyl sulfate		drums/landfilled		
D001, D039	Waste petroleum naptha		off-site		
D040	TCE-contaminated ground-water filter media		drums/incinerated		
D008	Lead-contaminated carbon dust		drums/landfilled		

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

EPA Region 5 and OEPA files, ODNR, USGS, USDA

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 02/ /85) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 400 — 04 NARRATIVE DESCRIPTION

Ground-water contamination has been detected at three areas of the facility and is suspected in other locations.

01 □ B. SURFACE WATER CONTAMINATION — 02 □ OBSERVED (DATE:) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

None

01 □ C. CONTAMINATION OF AIR — 02 □ OBSERVED (DATE:) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

None

01 □ D. FIRE/EXPLOSIVE CONDITIONS — 02 □ OBSERVED (DATE:) — □ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

None

01 ■ E. DIRECT CONTACT — 02 □ OBSERVED (DATE:) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190 — 04 NARRATIVE DESCRIPTION

The facility is completly fenced and has 24-hour security. Employees can come in contact with contaminated materials.

01 ■ F. CONTAMINATION OF SOIL — 02 X□ OBSERVED (DATE: 02/ /85) — □ POTENTIAL — □ ALLEGED
03 AREA POTENTIALLY AFFECTED: 46 *(Acres)* — 04 NARRATIVE DESCRIPTION

Soil contamination has been documented in three areas at the facility. Other areas are suspected.

01 ■ G. DRINKING WATER CONTAMINATION — 02 □ OBSERVED (DATE:) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 400 — 04 NARRATIVE DESCRIPTION

Ground water is used locally as a drinking water source.

01 ■ H. WORKER EXPOSURE/INJURY — 02 □ OBSERVED (DATE:) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190 — 04 NARRATIVE DESCRIPTION

See Part F.

01 ■ I. POPULATION EXPOSURE/INJURY — 02 □ OBSERVED (DATE:) — ■ POTENTIAL — □ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,000 — 04 NARRATIVE DESCRIPTION

See Parts A, F, and G.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☒ OBSERVED (DATE: 02/ /85) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,000 — 04 NARRATIVE DESCRIPTION

See Part F.

01 ☐ N. DAMAGE TO OFF-SITE PROPERTY — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 ☐ O. CONTAMINATION OF SEWERS, DRAINS, WWTPS — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 ☐ P. ILLEGAL UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE:_____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 15,000

IV. COMMENTS

None

V. SOURCES OF INFORMATION ***(Cite specific references; e.g., state files, sample analysis, reports)***

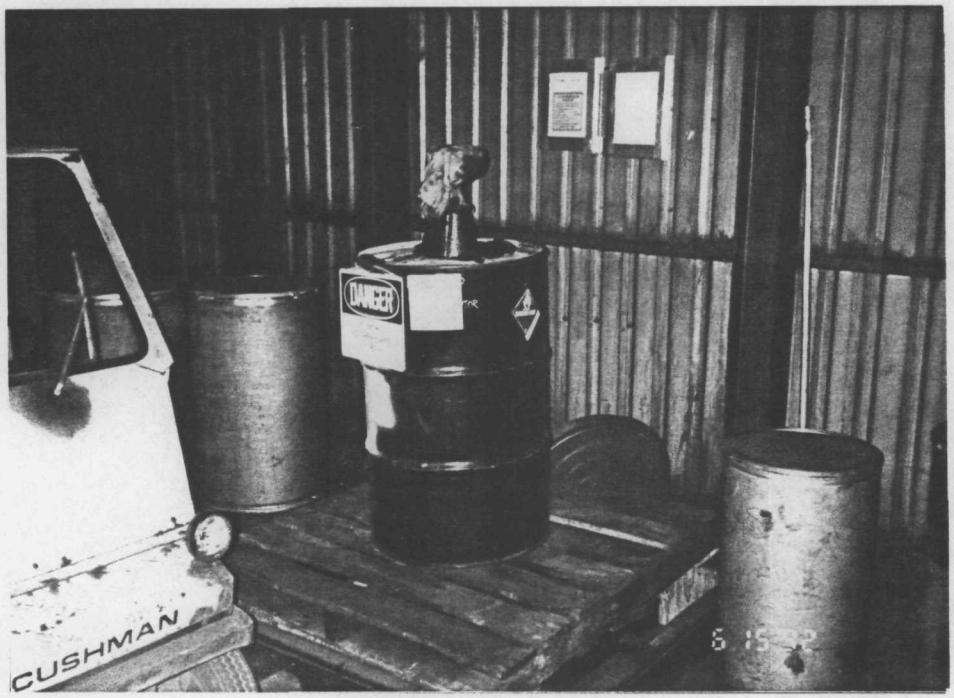
See Part 2, Section 5.

ATTACHMENT B
VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY

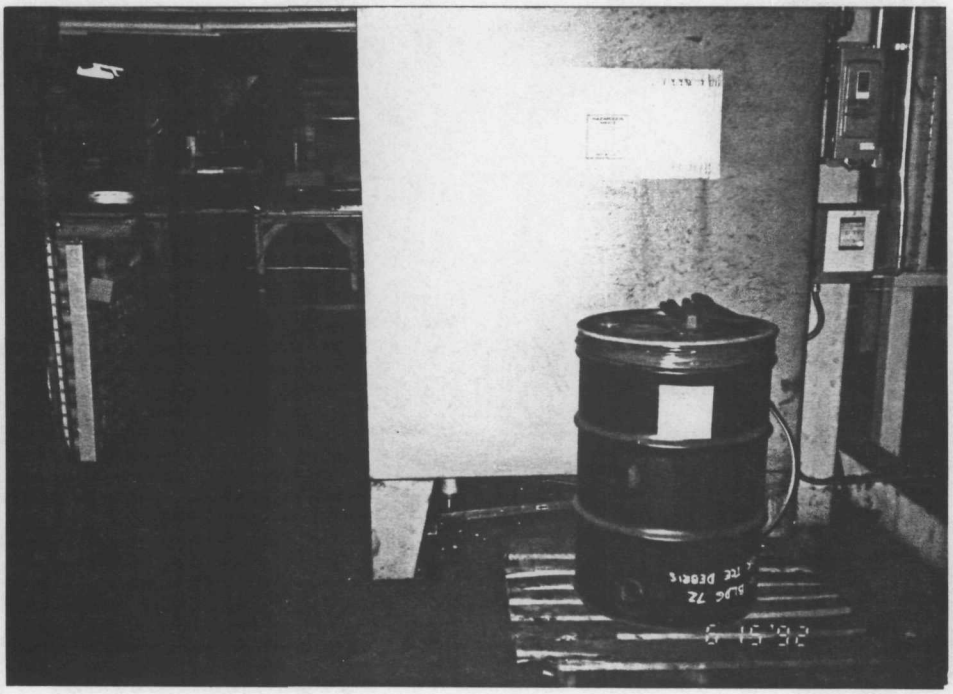
National Electrical Carbon Corporation
(formerly Union Carbide, Inc.)
200 North Town Street
Fostoria, Ohio
OHD 004 167 219

Date:	June 15, 1992
Primary Facility Representative:	Michael Wentzel, Manager of Health, Safety, and Environmental Affairs
Representative Telephone No.:	(419) 436-5923
Inspection Team:	Pete Zelinskas, PRC Environmental Management, Inc.
Photographer:	Pete Zelinskas
Weather Conditions:	Sunny and breezy, about 78°F
Summary of Activities:	The visual site inspection (VSI) began at 1:30 p.m. with an introductory meeting. The inspector explained the purpose of the VSI and the agenda for the visit. Mr. Wentzel then discussed the facility's past and current operations, solid wastes generated, and release history. He provided the inspector with copies of requested documents, a written description of waste management at the facility, and a facility map. The VSI tour began at 2:20 p.m. The inspector examined waste generating processes and waste management units, reviewed areas of remediation, and identified AOCs. The tour concluded at 4:30 p.m, after which the inspector held an exit meeting with Mr. Wentzel. The VSI was completed and the inspector left the facility at 4:45 p.m.



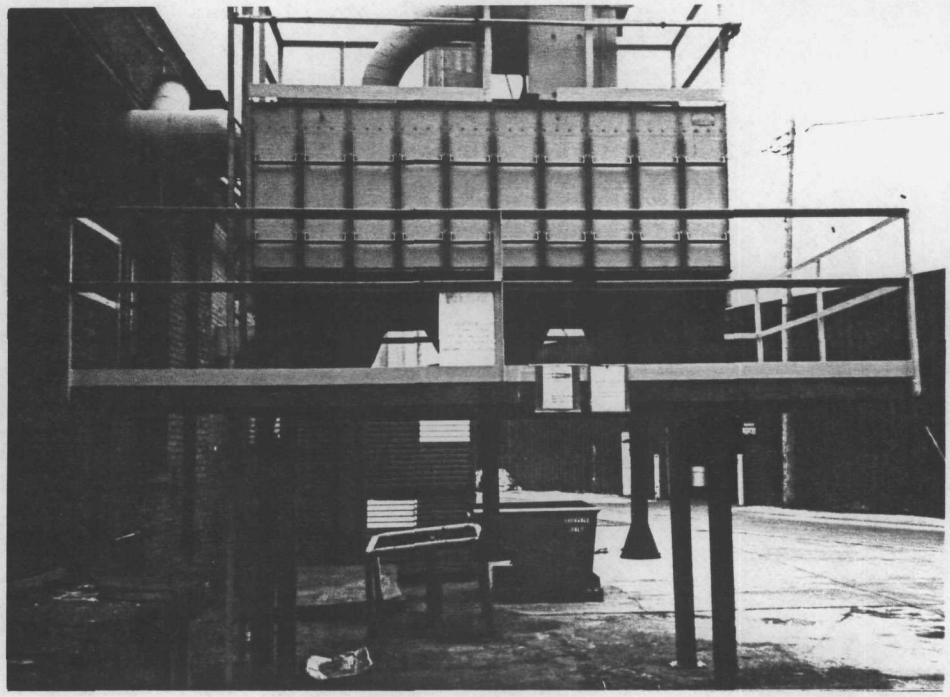
Photograph No. 1
Orientation: Northeast
Description: A Satellite Accumulation Area.

Location: SWMU 1
Date: 06/15/92



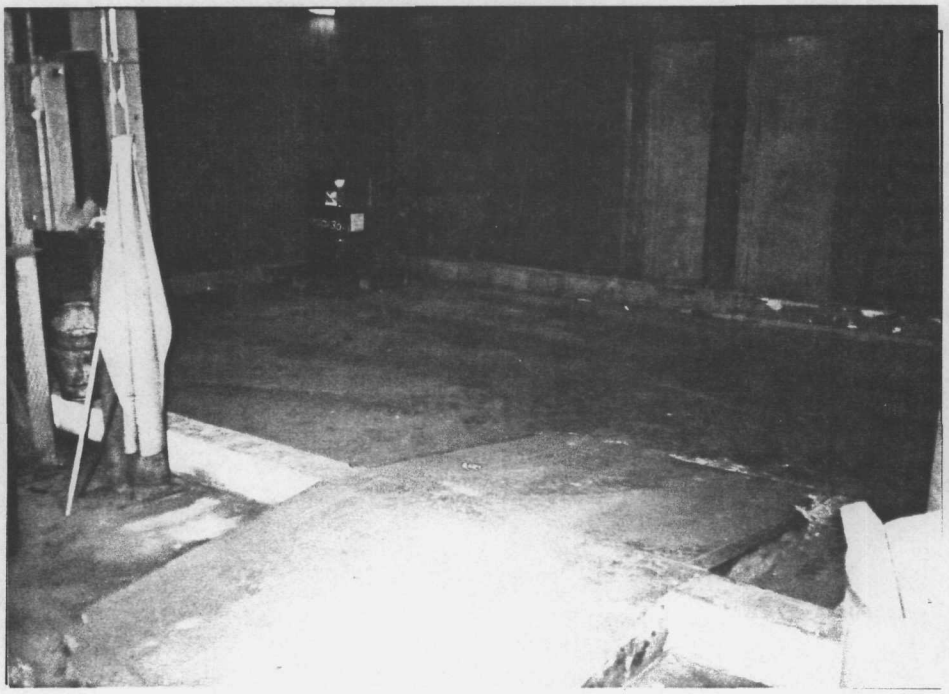
Photograph No. 2
Orientation: South
Description: A Satellite Accumulation Area.

Location: SWMU 1
Date: 06/15/92



Photograph No. 3
Orientation: East
Description: A typical baghouse at the NECC facility.

Location: SWMU 2
Date: 06/15/92

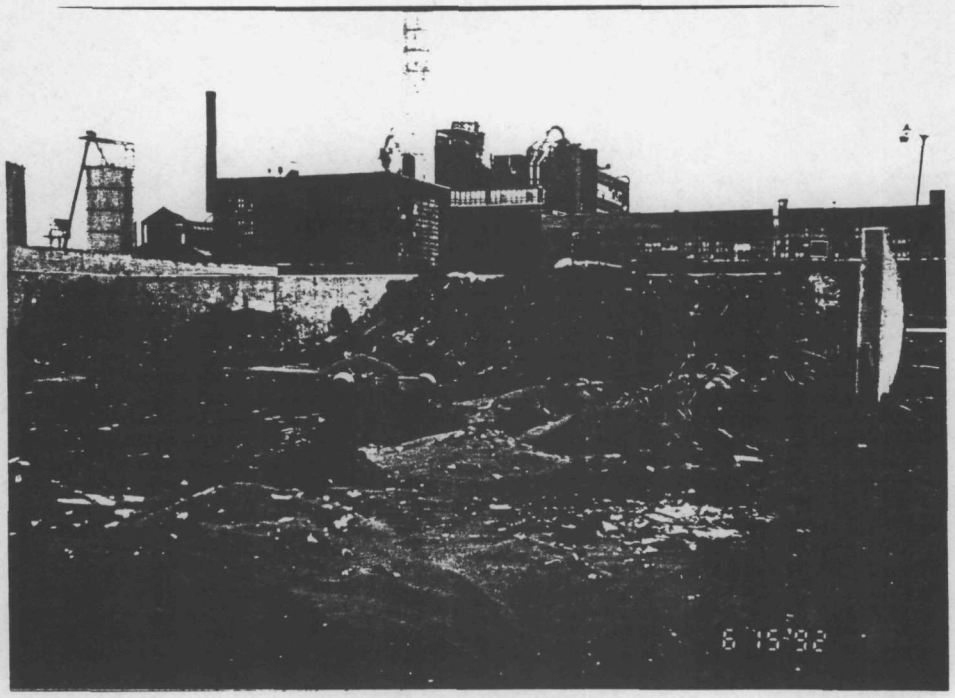


Photograph No. 4
Orientation: Southwest
Description: The hazardous waste containment area of SWMU 3.

Location: SWMU 3
Date: 06/15/92

Photograph No. 5 Location: SWMU 4
Orientation: Northwest Date: 06/15/92
Description: The empty drum storage area of SWMU 3. Note the deterioration of the concrete base. Bags of waste baghouse dust can be seen in the background.

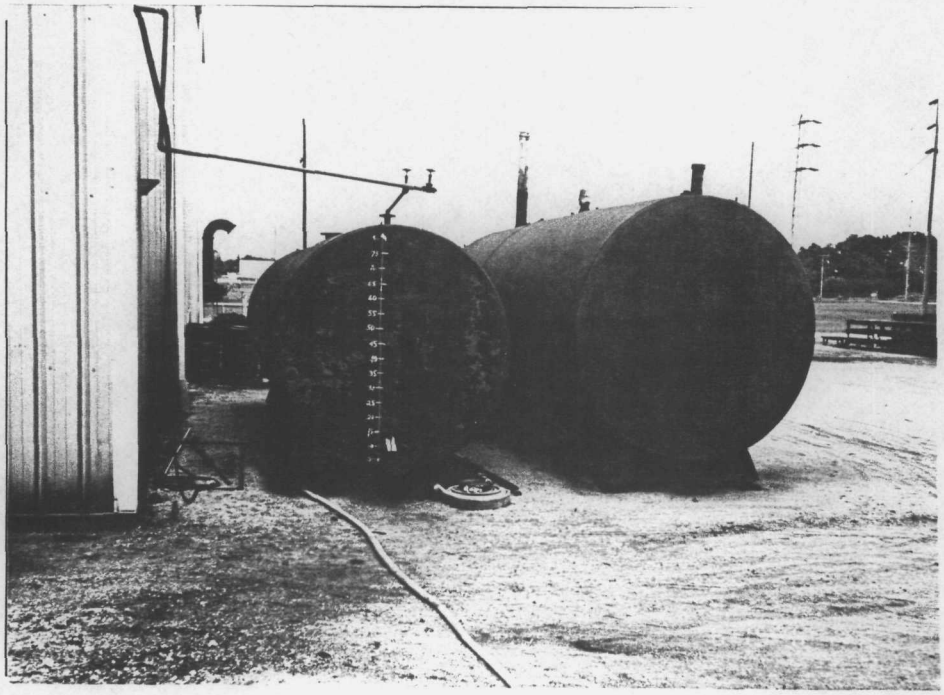
Photograph No. 6 Location: SWMU 5
Orientation: Northwest Date: 06/15/92
Description: The Waste Oil Storage Area.



Photograph No. 7 Location: SWMU 6
Orientation: Southwest Date: 06/15/92
Description: The Debris Collection Area. The portion shown is for the collection of waste carbon materials.

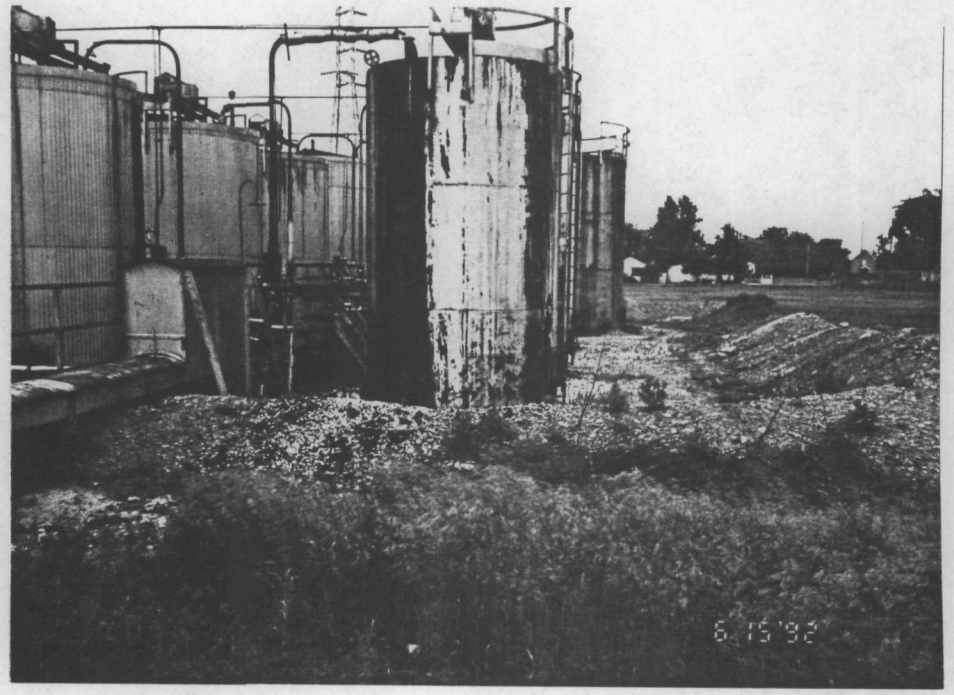
Photograph No. 8 Location: SWMU 6
Orientation: Southeast Date: 06/15/92
Description: The Debris Collection Area. The portion shown is for the collection of scrap metal and unusable drums.

Photograph No. 9 Location: SWMU 7
Orientation: Northwest Date: 06/15/92
Description: The Former Hazardous Waste Storage Area.

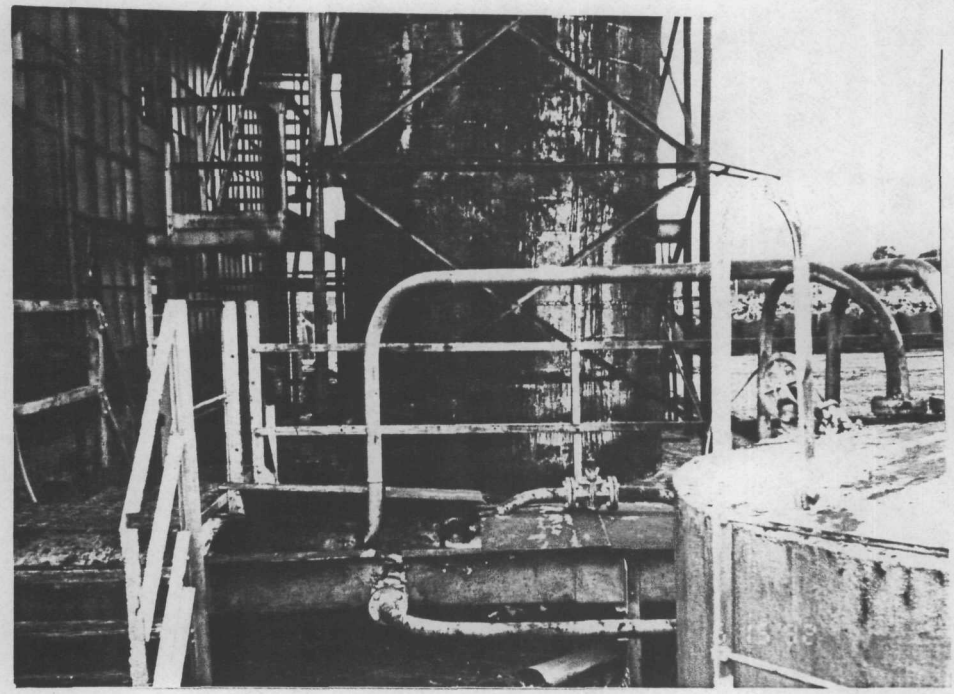


Photograph No. 10 Location: SWMU 8
Orientation: North Date: 06/15/92
Description: The Ground-Water Collection Tank. The tank on the right is the 8,000-gallon tank excavated from between Building Nos. 72 and 77.

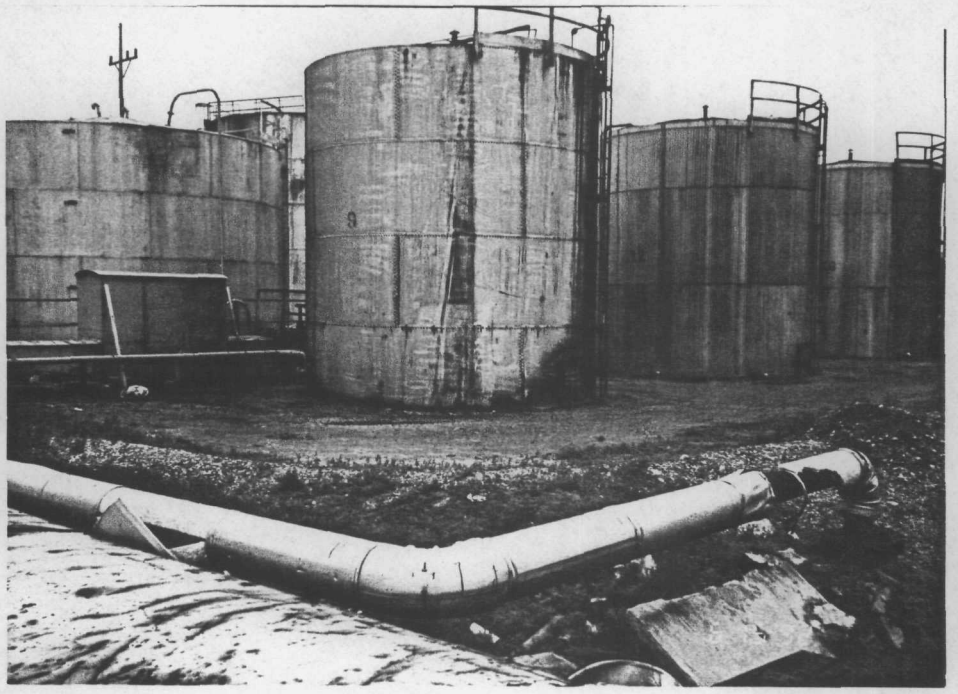
Photograph No. 11 Location: AOC 1
Orientation: Southeast Date: 06/15/92
Description: The ground-water collection sumps at AOC 1.



Photograph No. 12 Location: AOC 3
Orientation: North Date: 06/15/92
Description: Aboveground storage tanks of the northern portion of the Tank Field. Note the chemical residue on the side of the tank in the center of the photograph.



Photograph No. 13 Location: AOC 3
Orientation: West Date: 06/15/92
Description: An aboveground tank at the rear of the pumping station. Note the residue on the side of the tank.



Photograph No. 14 Location: AOC 3
Orientation: Southeast Date: 06/15/92
Description: Aboveground storage tanks of the southern portion of the Tank Field.

ATTACHMENT C
VISUAL SITE INSPECTION FIELD NOTES

6-15-92

VSI for National Electrical Carbon Corp. (formally Union Carbide) Fostoria, OH

EPA ID OH4 167 219

Site Contact: Mike Wentzel

Conditions: Sunny, breezy ≈ 78°

1330 History –
Early
Late 1890s

Glass Manufacturing – lighting

= 1917 Union Carbide

Were into lighting industry. Carbon and graphite manufacturing.

* Write up Provided by M. Wentzel. Entire complete

Removed soil from tank area. ≈ 15 feet down

46 acres now. Was about 70

Robert Johnston 6-15-92

* Waste generating
See sheet.

Issues – Not all

1. Fairchild. Satellite,
2. Carbon Deals, Brighouse
{24-hour security, totally fenced.}
3. Satellite Accum
4. Haz Waste Stor. Area
5. GW Treatment System
6. Waste Area

* City Water – Have Res.
Portage River and deep wells.

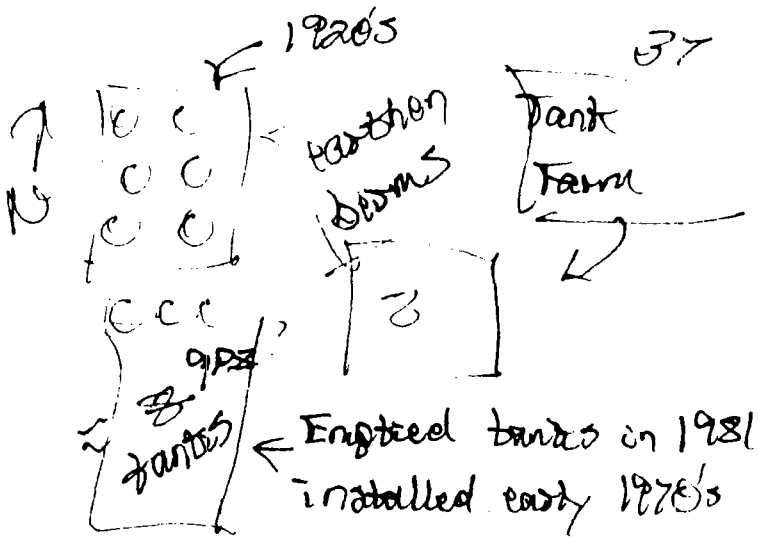
Have a few industrial wells on-site. Use ground water because it is colder. Screened at ≈250'

Monitoring wells all over.

Robert Johnston 6-15-92

1420 #1, 2 lead dust ≈ 20-25 collectors
PE employees 3 shifts
Most lab.
3, 4 waste dusts
5 oil (waste)
Cowins Waste Control,
Toledo, Oh
No containment Bld. 2E
≈ 25 drums

* Haz waste storage area
Indoors 8 inch berm
Sealed ramp
Collection sump 20x12
* Drum Storage Area - Empty
Cracked No Berm
Roasted Cans find someone
to take them. Needs work.
* 3-4 Storage tanks
6, 7, 9 photos
Deb R. Zelinsky 6-15-82



≈ 8,000 → 20,000 gal. Have stopped using all.
≈ 4 tanks Quite messy.
Used oil for material.
Tanks were heated.

* Debris Collection Area
Seneca Landfill, Ohio
Waste carbon
* Waste metal, debris
Cans, various metal
parts, crushed + removed.
Deb R. Zelinsky 6-15-82

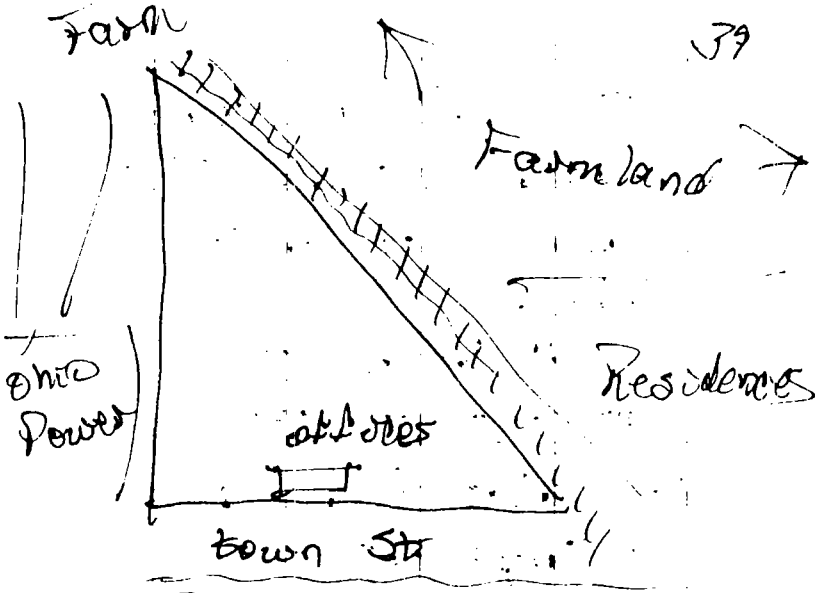
* Retention Tanks for #9 treated ground water 7,000 gal. Tank removed #10 old tank area
See file

* Satellite Accum Solid DCE, Both solid & Liquid Containment around liquid concrete cinder block berm. #9

* Closed Haz Waste Site Area #11

1630 Meeting with Mr. Wentzel to fill in map. Mixed industrial/residential neighborhood. Very active.

Ruth R. Johnson 6-15-93



1645 VSI Complete

6-15-93 Ruth R. Johnson